We claim:

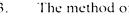
in the

فأسلس

- 1. A method of detecting the presence of at least one PDGFD antigen in a sample, comprising the steps of:
 - a) providing a biological sample;
 - b) contacting the sample with an agent that binds the antigen; and
- c) detecting the presence of the agent bound to the antigen; whereby the presence of the agent indicates that the antigen is present in the sample.
- 2. The method of claim 1 wherein the antigen is either p85 or p35.
- 3. The method of claim 1 wherein the sample originates in a mammal.
- 4. The method of claim 1 wherein the sample originates in a human.
- 5. The method of claim 1 wherein the sample is blood or a component thereof.
- 6. The method of claim 1 wherein the agent is an antibody.
- 7. A method of determining the amount of at least one PDGFD antigen in a sample, comprising the steps of:
 - a) providing a biological sample,
 - b) contacting the sample with an agent that binds the antigen, and
- c) determining the amount of the agent bound to the antigen; whereby the amount of the agent so determined correlates with the amount of the antigen in the sample.
- 8. The method of Claim 7 wherein the antigen is either p85 or p35.
- 9. The method of claim 7 wherein the sample originates in a mammal.
- 10. The method of claim 7 wherein the sample originates in a human.
- 11. The method of claim 7 wherein the sample is blood or a component thereof.

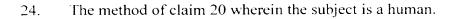
- The method of claim 7 wherein the agent is an antibody. 12.
- A method of contributing to a diagnosis of cancer in a subject, comprising the steps of: 13.
 - i) providing a biological sample from the subject, and
- ii) determining whether at least one PDGFD antigen is present in the sample; whereby a finding that the antigen is present indicates that the subject may have cancer.
- The method of claim 13 wherein the determining comprises the steps of: 14.
 - a) contacting the sample with an agent that binds the antigen, and
 - b) detecting the presence of the agent bound to the antigen.
- The method of claim 13 wherein the antigen is either p85 or p35. 15.
- The method of claim 13 wherein the subject is a mammal. 16.
- The method of claim 13 wherein the subject is a human. 17.
- The method of claim 13 wherein the sample is blood or a component thereof. 18.
- 19. The method of claim 14 wherein the agent is an antibody.
- A method of staging cancer in a subject, comprising the steps of: 20.
 - a) providing a biological sample from the subject:
 - b) determining the amount of at least one PDGFD antigen in the sample; and
- c) correlating the amount with the stage of the cancer; thereby staging the cancer in the subject.
- The method of claim 20 wherein the determining comprises the steps of: 21.
 - i) contacting the sample with an agent that binds the antigen, and
 - ii) determining the amount of the agent bound to the antigen.
- The method of claim 20 wherein the antigen is either p85 or p35. .22
- The method of claim 30 wherein the subject is a mammal. 23.





Exercity.

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- 25. The method of claim 20 wherein the sample is blood or a component thereof.
- 26. The method of claim 21 wherein the agent is an antibody.
- 27. A method of phosphorylating a tyrosine residue of a cellular receptor comprising the step of contacting a cell harboring the receptor with a PDGFD polypeptide.
- 28. The method of claim 27 wherein the receptor is a PDGF receptor.
- 29. The method of claim 27 wherein the receptor comprises a PDGF beta receptor.
- 30. The method of claim 27 wherein the receptor comprises a PDGF alpha receptor.
- 31. The method of claim 27 wherein the PDGFD polypeptide is chosen from the group consisting of a p85 polypeptide and a p35 polypeptide.
- 32. A method of stimulating a response in a cell that is specific for a PDGF beta receptor comprising contacting the cell with a PDGFD polypeptide.
- 33. The method of claim 32 wherein the PDGFD polypeptide is chosen from the group consisting of a p85 polypeptide and a p35 polypeptide.
- A method of stimulating a response in a cell that is specific for a PDGF alpha receptor comprising contacting the cell with a PDGFD polypeptide.
- 35. The method of claim 34 wherein the PDGFD polypeptide is chosen from the group consisting of a p85 polypeptide and a p35 polypeptide.
- 36. A method of inhibiting the growth of a cell comprising contacting the cell with an agent that specifically binds a PDGFD polypeptide.

- 37. The method of claim 36 wherein the agent is an antibody that immunospecifically binds a PDGFD polypeptide.
- 38. The method of claim 37 wherein the antibody is a fully human antibody.
- 39. The claim of claim 36 wherein the PDGFD polypeptide is chosen from the group consisting of a p85 polypeptide and a p35 polypeptide.
- 40. An isolated nucleic acid comprising a sequence encoding a PDGFD polypeptide of SEQ ID NO:2.
- The isolated nucleic acid of claim 40, wherein the polypeptide comprises the amino acid residues from position 247 through position 370 of SEQ ID NO:2.
- 42. The isolated nucleic acid of claim 40, wherein the polypeptide comprises the amino acid residues from position 249 through position 370 of SEQ ID NO:2.
- 43. An isolated polypeptide comprising a PDGFD amino acid of SEQ ID NO:2.
- 44. The isolated polypeptide of claim 43, wherein the polypeptide comprises the amino acid residues from position 247 through position 370 of SEQ ID NO:2.
- 45. The isolated polypeptide of claim 43, wherein the polypeptide comprises the amino acid residues from position 249 through position 370 of SEQ ID NO:2.
- 46. A method of preparing a PDGFD polypeptide comprising the amino acid residues from position 247 through position 370 of SEQ ID NO:2, the method comprising the steps of:
- a) contacting a cell with an expression vector comprising the sequence comprising the nucleic acid encoding amino acid residues from position 247 through position 370 of SEQ ID NO:2:
 - b) culturing the cell so contacted; and
 - c) isolating the polypeptide from the cultured cells.

- 47. A method of preparing a PDGFD polypeptide comprising the amino acid residues from position 249 through position 370 of SEQ ID NO:2, the method comprising the steps of:
- a) contacting a cell with an expression vector comprising the sequence comprising the nucleic acid encoding amino acid residues from position 249 through position 370 of SEQ ID NO:2;
 - b) culturing the cell so contacted; and
 - c) isolating the polypeptide from the cultured cells.